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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,110	11/25/2003	Richard Paul Messmer	124383-2	1274
7590 Cantor Colburn LLP 55 Griffin Road South Bloomfield, CT 06002		06/25/2007	EXAMINER PROCTOR, JASON SCOTT	
			ART UNIT 2123	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/723,110	Applicant(s) MESSMER ET AL.	
	Examiner Jason Proctor	Art Unit 2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-28 were rejected in the Office Action of 17 January 2007. Applicants' response submitted on 17 April 2007 has amended claims 1, 2, 3, 11, 12, 13, 18, 19, 20, 21, 23, and 28. Claims 1-28 are pending in this application.

Claims 1-28 are rejected.

Applicants are notified that there is a new Examiner of record in this application.

Drawings

The previous objections to the drawings are withdrawn in response to the substitute drawing sheets.

Specification

The previous objections to the specification are withdrawn in response to the amendments to the specification.

Claim Objections

The previous objections to the claims are withdrawn in response to the amendments to the claims.

Claim Rejection – 35 USC § 112

The previous rejections under 35 U.S.C. § 112, second paragraph, are withdrawn in response to the amendments to the claims.

Claim Rejections – 35 USC § 101

The previous rejections under 35 U.S.C. § 101 are withdrawn in response to the amendments to the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. § 102(e), (f) or (g) prior art under 35 U.S.C. § 103(a).

1. Claims 1-4, 6, 8, 9, 11-16, 18-26 and 28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Son et al ("Automatic Generation of Simulation Models from Neutral

Libraries: An Example", Proceedings of the 2000 Winter Simulation Conference", Volume 2, pages 1558-1567, Orlando, FL, December 2000) in view of Kosiba et al. (US Patent 7,103,562).

As to Claims 1,11, 18 and 21 Son et al teaches:

a system to simulate a process of discrete events or tasks having a plurality of available resources associated therewith, the system comprising: a database to store a plurality of models, each model including a plurality of one or more entity, task, and resource parameter (Figure 1, "Library of Simulation Objects for All Applications"; section 1, paragraph 2, lines 1-12; Figure 3; section 4, 4.1,4.2 and previous descriptions of information and tables used to populate the database tables section 3), each model associated with a model template having a plurality of tables representative of each of the plurality of one or more entity, task, and resource parameter [*"model templates"* (page 1558, right column); *"After the library of simulation objects is constructed, each component in the library becomes a basic building block (module) to model systems of interest."* (page 1558, right column)];

a model application (Figure 1, "Model Builder") in communication with the database and configured to receive commands from a user,

to retrieve one of the plurality of models and the corresponding plurality of one or more entity, task, and resource parameter in response to a user command (section 1, paragraph 2, lines 12-15, paragraph 3, lines 1-3; Figure 1, "User", "Model Description (Neutral); section 5.1, lines 1-4; Section 5.5),

to receive input data corresponding to attributes of one or more entity, task, and resource parameter from a business database system (Figure 1, "Shop Floor (Real Data); Figure 4; section 5.1, paragraph 1, lines 4-9; section 5.2, paragraph 2, lines 10-11), and

to perform allocations of the one or more entity, task, and resource parameters, to store the allocations in the database ["*Each station information object is composed of... a capacity... Capacity – the integer value defining capacity characteristics of the station.*" (page 1560), performing allocations of a capacity resource], and

to generate a simulation model based on the selected business database system, the allocations that are retrieved from the database by the model application to generate the simulation model, and the input data (section 1, paragraph 3, lines 3-6; Figure 1, "Model Builder", "Specific Simulation Model"; section 5, introductory paragraph; section 5.1, paragraph 1, lines 4-9; section 5.2, paragraph 2, lines 10-11; section 5.3, lines 13-14; Figure 5) and

a server to perform a simulation of the process, by processing the simulation model and to generate an output data file containing output data representative thereof and configured to be stored as a future model template in the database and as input to the model application (Figure 1, "Engine Simulation", "Data Analyzer", "Animation Visualization"; section 3.6; section 5.4, Figure 6; Conclusion, lines 9-12).

Son et al does not expressly teach:

an optimizing application in communication with the model application and configured to receive commands from a user, to select at least one entity, task, and resource parameter of the

simulation model with respect to an objective function, to define bounds of at least one of the entity, task, and resource parameter selected, and to generate values for the objective function based on the at least one of the task, and resource parameter selected.

Kosiba et al teaches a system that can easily produce accurate staff plans, budget plans and behavioral analysis for a business (column 3, lines 5-8) that overcomes the limitations of prior art discrete event simulation systems that are complex to develop, difficult to use and too computationally slow for budget and staff planning (column 2, lines 51-67), wherein a discrete event simulation model is created based on inputs such as available resources and the performance of the resources (column 12, lines 35-65), an optimizing application in communication with the model application and configured to receive commands from a user, to select at least one entity, task, and resource parameter of the simulation model with respect to an objective function, to define bounds of at least one of the entity, task, and resource parameter selected, and to generate values for the objective function based on the at least one of the task, and resource parameter (column 24, line 46-column 25, line 45).

Son et al and Kosiba et al are analogous art since they are both directed to the building of a discrete event simulation model for a business process for the purpose of performance analysis.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system to simulate a process of discrete events as taught by Son et al to include the optimizing application that generates values for an objective function as taught in

Kosiba et al since Kosiba et al teaches a system that can easily produce accurate staff plans, budget plans and behavioral analysis for a business (column 3, lines 5-8) that overcomes the limitations of prior art discrete event simulation systems that are complex to develop, difficult to use and too computationally slow for budget and staff planning (column 2, lines 51-67).

As to Claims 2, 12, 19, and 22, Son et al in view of Kosiba et al teach: wherein the objective function comprises a combination of system financial performance measures and process performance measures (Kosiba et al: column 24, line 46-column 25, line 45).
33. As to Claims 3, 13, 20 and 23, Son et al in view of Kosiba et al teach: wherein the optimization application is further configured to receive commands from a user to select another at least one entity, task, and resource parameter of the simulation model with respect to an objective function, to define bounds of the other at least one of the entity, task, and resource parameter selected, and to generate values for the objective function based on the other at least one of the entity, task, and resource parameter selected (Kosiba et al: column 3, lines 30-35; column 22, lines 32-35; column 24, line 41-column 25, line 45).

As to Claims 4, 14 and 24, Son et al in view of Kosiba et al teach: the optimizing application in communication with the model application and configured to receive commands from a user further to generate financial performance data based on the values generated for the objective function (Kosiba et al: column 25, lines 46-58).

As to Claims 6, Son et al in view of Kosiba et al teach: wherein at least one of the model application and the optimization application is interactive with a user (Kosiba et al: Figure 9, element 990; column 22, lines 32-35; column 24, lines 56-57; Son et al: section 1, paragraph 2, lines 12-15; Figure 1, "User"; Figure 2 and description; section 5.5; Conclusion, lines 8-12).

36. As to Claims 8, 15 and 25, Son et al in view of Kosiba et al teach: wherein the model application performs processing on the input data corresponding to attributes of one or more entity, task, and resource parameter from the business database system, the processing including determining relationships within the input data (Son et al: section 4.2; section 5.1, paragraph 1, lines 4-9; section 5.2, paragraphs 1-3; section 5.3, lines 9-14).

As to Claims 9, 16 and 26, Son et al in view of Kosiba et al teach: The system according to claim 8, wherein the processing includes performing distribution curve fitting on the input data using a goodness of fit technique (Kosiba et al column 10, lines 59-62; column 11, lines 27-42; column 12, lines 35-38, wherein the input data that is used to create the discrete event simulation model is processed).

As to Claim 28, Son et al in view of Kosiba et al teach: means for updating the model database with performance and processing details from an operation data system (Kosiba et al: column 13, lines 50-64).

Claims 5, 7, 10, 17 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Son et al in view of Kosiba et al as applied to claims 1, 11 and 21 above, and further in view of Fontana et al (US Patent 6,167,564).

Son et al in view of Kosiba et al teach a system to simulate a process of discrete events or tasks with a plurality of resources associated therewith including a model application and an optimizing application, wherein commands from a user are received through a graphical user interface (Son et al; section 1, paragraph 2, lines 14-15; Figure 2 and description; section 5.5; section 6, lines 9-12). Son et al further teaches that the neutral libraries of simulation components would speed and enable internet-based simulation services (Abstract, lines 3-6; section 1, paragraph 2, lines 14-15).

Son et al in view of Kosiba et al do not expressly teach (claim 5) wherein at least one of the model application and the optimization application are located at a web server; (claim 7) wherein the interacting with a user is performed over the Internet and (claims 10, 17 and 27), the graphical user interface is located remote from the database.

Fontana et al teaches a system for integrating software development tools and applications into a computer system in order to build, deploy and maintain enterprise business process applications in a heterogeneous development framework that overcomes the prior art limitations of integrating only those tools from the same vendor or the lack of tool interoperability wherein (claim 5) a model application is located at a web server (Figure 5, element 66; column 8, lines 54-55) wherein (claim 7) the interacting with a user is performed over the Internet (Figure 2, elements 30, 29; Figure 5, elements 72, 73; column 9, lines 1-3) and

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wherein (claims 10, 17 and 27) the graphical user interface is located remote from the database (Figure 2, element 30; column 5, lines 37-48).

Son et al in view of Kosiba et al and Fontana et al are analogous art since they are all directed to the modeling of a business process.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system to simulate a process of discrete events or tasks including a model application and an optimizing application as taught by Son et al in view of Kosiba et al to further include the location of a model application or optimization application at a web server, interacting with a user over the internet and wherein the graphical user interface is located remote from the database as taught by Fontana et al since Fontana et al teaches a system for integrating software development tools and applications into a computer system in order to build, deploy and maintain enterprise business process applications in a heterogeneous development framework that overcomes the prior art limitations of integrating only those tools from the same vendor or the lack of tool interoperability wherein a model application is located at a web server (Figure 5, element 66; column 8, lines 54-55).

Response to Arguments – 35 USC 103

2. In response to the previous rejections under 35 U.S.C. § 103 of claims 1-4, 6, 8, 9, 11-16, 18-26, and 28 as unpatentable over Son et al. in view of Kosiba et al., Applicants argue primarily that:

The Office Action admits that Son et al. does not expressly teach an optimization application in communication with the model application and configured to receive commands from a user, to select at least one entity, task, and resource parameter of the simulation model with respect to an objective function, to define bounds of at least one of the entity, task, and resource parameter selected, and to generate values for the objective function based on the at least one of the task, and resource parameter selected. The Office

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Action further cites Kosiba as having an optimization function. However, Son et al does not have a teaching or suggestion that would motivate the addition of an optimization application. In fact, Son et al discloses the simplification of the generation of simulation models and reduces the complexity of simulation of modeling analysis (see at least Son et al Abstract). Son et al discloses the development of neutral libraries of simulation components (see at least, Son et al Abstract, and FIG. 1). As such, the addition of an optimization application as described in Kosiba adds a level of complexity, which is contrary to the teaching of Son et al.

The Examiner respectfully traverses this argument as follows.

There is no requirement in either 35 U.S.C. § 103 or the Graham factual inquiries that the primary reference in an obviousness-type rejection explicitly “have a teaching or suggestion that would motivate the addition” of a secondary teaching. The rejection properly applied the Graham factual inquiries to identify the explicit teachings in the secondary reference, the Kosiba patent, which would have motivated a person of ordinary skill in the art at the time of Applicants’ invention to combine the teachings of the two cited references.

Further, the “neutral libraries” taught by Son et al. are directed to templates for quickly producing more specialized simulation components (see, for example, Son et al. Abstract). There is simply no teaching whatsoever in the Son reference which disparages an optimization application or the advantages of an optimization application as taught by Kosiba. Neither cited reference teaches away from the other.

Applicants further argue that the applied references do not teach the amended claim language. The Examiner has applied the references to the amended claim language as shown above. Therefore, these arguments are unpersuasive.

Applicants’ arguments have been fully considered but have been found unpersuasive.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

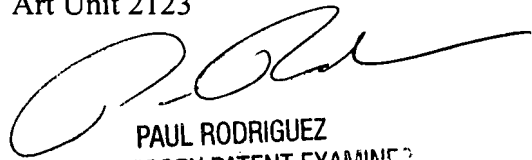
Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR)

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system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Proctor
Examiner
Art Unit 2123

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